REMARKS

In reply to the Office Action dated March 23, 2006, Applicants submit the following remarks.

As the Examiner requested, Applicants have updated the information regarding co-pending U.S. Patent applications on page 1 of the specification.

Claim rejections – 35 U.S.C. § 102(b).

The Examiner has rejected claims 1-5, 7-9, 13-19, 21, 22, 26 and 27 under 35 U.S.C. 102(b) as being anticipated by Sherman et al (USPN 6,451,240 ('240 patent)), which discloses a method of manufacturing an intracutaneous microneedle array. The Examiner primarily points to the embodiments of Figures 56A and 56B in the '240 patent as basis for the rejection. In the following sections, it is crucial to note that the referenced figures in the '240 patent are *cross-sectional* elevation views of the disclosed microneedles, and therefore illustrate only two sides of a metal-coated microneedle. In reality, all sides of the microneedle are in fact coated with a metal layer. Applicants' microelectrode is not coated with metal on all sides.

Claim 1 recites: "A microelectrode comprising an upper surface, two walls, and a polymer core, each of the two walls forming an angle with a lower surface, wherein the upper surface and each of the two walls comprise a metal thin film in contact with the polymer core, and the lower surface lacks a continuous metal thin film." In Figure 56B of the '240 patent, the walls of the polymer structure (microneedle) referred to are coated on all sides by a conducting metal via an electroplating process. Moreover, the (lower) surface of the support is similarly coated with conductor across the physical dimensions of the device. Applicants claim a microelectrode as described in claim 1 of the instant application with *only two* walls of the polymer support structure coated with a metal thin film, and wherein the conductive metal coating does not substantially cover the (lower) surface of the support.

Figure 56A of the '240 patent likewise illustrates, through a cross-sectional elevation view, a polymer support structure with a "conductive layer" (note that this does not necessarily

imply a *metal* layer) at or near the top surface of the structure. Again, Applicants claim a microelectrode as described in claim 1 wherein only two of the four sides comprising the walls of the polymer support structure are coated with a metallic conducting layer. Referring to claim 15, the '240 patent does not describe a microelectrode structure with a supporting polymer comprising an upper *and lower* surface that lacks a continuous metal thin film and two walls that do comprise a metal thin film. The distinction that microelectrodes of the instant invention comprise only two walls coated with a conductive metallic layer establishes independent claims 1 and 15 and their dependent claims in condition for allowance.

Sherman et al. disclose a method for manufacturing a microneedle array that differs significantly from the present application, and therefore does not anticipate Applicants' claims. Applicants therefore request allowance of claims 1-5, 7-9, 13-19, 21, 22, 26 and 27.

Claim rejections – 35 U.S.C. §103(a).

Examiner rejected claims 6, 10-12, 20 and 23-25 as being unpatentable over Sherman et al. ('240 patent), as applied to claims 1 and 15. The differences between the microneedle in the '240 patent and the Applicants' microelectrode precludes obviousness. The Examiner's reference to the descriptions of the polymer support structure does not teach any material that would substantiate obviousness in light of the differences between the two devices discussed above. Applicants request that the Examiner remove the obviousness rejection of dependent claims 6, 10-12, 20 and 23-25, which each depend either directly or indirectly from claim 1 or claim 15.

Conclusion

Claims 1-27 are in condition for allowance. It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in

this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

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Respectfully submitted,

Date: May 26, 2006

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